

# ***Completing College***

## National and State Reports

*With Longitudinal Data Dashboard on Six- and Eight-Year Completion Rates*



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## About This Report

As the eleventh in the Completing College series, this report updates the six-year college completion rates nationally and by state, by tracking the enrollment and completion outcomes for the fall 2016 cohort of beginning college students through June 2022. The report also features national eight-year completion outcomes for the fall 2013 and fall 2014 cohorts through June 2021 and June 2022 respectively.

The national completion rate measures the performance of the entire higher education system. It counts all students who enter postsecondary education for the first time each fall, enrolling full-time or part-time at two-year or four-year institutions, and completing at any U.S. degree-granting institution. It includes those who complete after transfer, not just completions at the starting institution. Thus, the results more fully capture today's students' success, which increasingly involve mobility across institutions, re-entry after stop-out, and changes in enrollment intensities.

A longitudinal data [dashboard](#) accompanies this report and offers detailed six-year and eight-year completion outcomes by cohort year across starting institution sectors and student backgrounds, enabling national and state-level comparisons through interactive visualizations and analysis tools. Underlying data are available on the [website](#) for downloading.

## Key Findings

- Progress in the national college completion rate has stalled. The six-year completion rate for the fall 2016 cohort was 62.3 percent, essentially unchanged from the 2015 cohort (62.2%). This flatline follows the gain of 1.2 percentage points in the preceding year (2014 to 2015).
- Six-year completion rates increased in over half of states, but improvements were small, with only five states increasing 1 percentage point (pp) or more. This is markedly different from the previous year when two-thirds of states had gains of at least 1 pp.
- Completion rates decreased at similar rates for White, Black, and Latinx students, by approximately half a percentage point, but increased for Asian and Native American students (+1.2 pp and +3.0 pp respectively).
- The gender gap in completion rates is steadily growing and is the widest seen since 2008 (7.1 pp).
- Traditional aged college students beginning in fall 2016 saw no change in their overall six-year completion rate. Completion rates continue to improve for older students. Older students continue to make gains, but they still lag behind traditional aged students.
- The national eight-year completion rates did not change between the fall 2013 and fall 2014 cohorts. An additional 4.5 percent of fall 2013 cohort and 4.2 percent of the fall 2014 cohort completed in their seventh and eighth years. Compared to other students, proportionally more Latinx and Asian students completed during their seventh and eighth years.

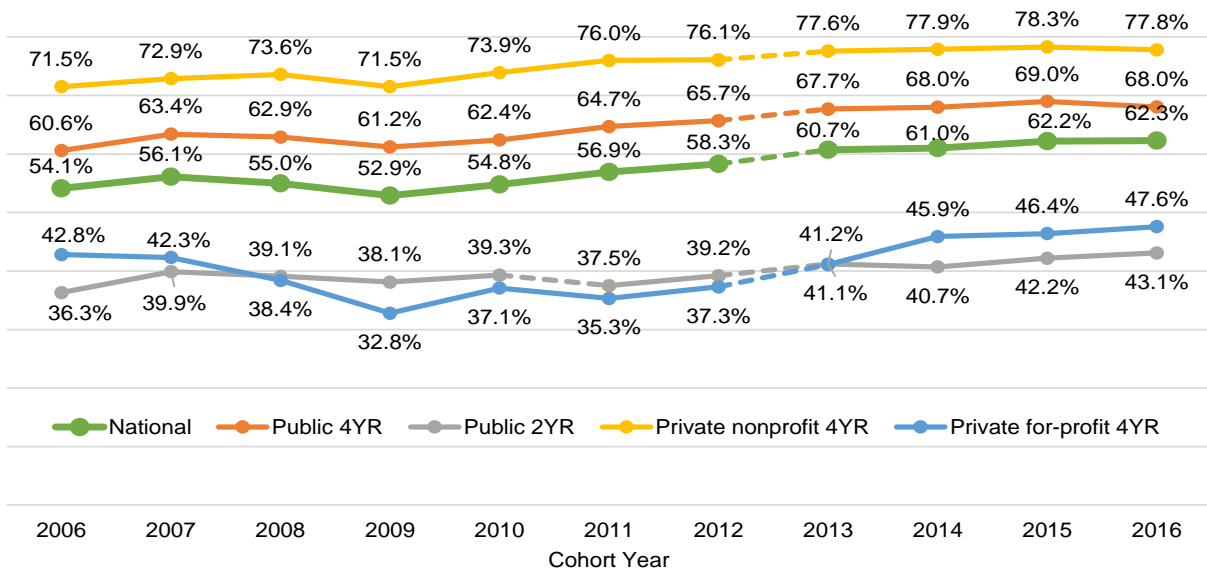
**1. Progress in the national college completion rate has stalled. The six-year completion rate for the fall 2016 cohort was 62.3 percent, essentially unchanged from the previous cohort (62.2%). This flatline follows the gain of 1.2 percentage points in the preceding year (2014 to 2015).**

Over 2.4 million people entered postsecondary education for the first time fall 2016, an increase of 1.4 percent, or 33,000 students, over the previous cohort year. Their overall completion rate of 62.3 percent within six years of enrolling barely moved beyond that of the 2015 cohort (62.2%, see **Figure 1**). Community college completion rates increased 0.9 percentage points (to 43.1%) while their cohort size continued to shrink. On the other hand, for the first time in recent years, the six-year completion rates dropped among public four-year and private nonprofit four-year starters (-1.0 pp to 68%, and -0.5 pp to 77.8%, respectively) while the size of these cohorts increased.

However, it is important to consider the institutional sector reclassifications when interpreting year-over-year changes by starting institution sector. Between 2015 and 2016, 25 public two-year institutions were reclassified as four-year institutions (primarily associate degree granting bachelor's institutions). Though reclassifications had occurred previously, because an unusually large number of institutions were affected in 2016, we examined the net impacts (see **Table 1**). If these institutions had not been recategorized, the national public two-year completion rates would have been 42.6 percent, up only 0.4 pp from the previous year, instead of an increase of 0.9 pp, whereas the national public four-year rate would have been 69.4 percent, up 0.4 pp, rather than a decline of 1.0 pp.

The proportion of students still enrolled anywhere six years after starting was 8.9 percent (see **Figure 3**), down 0.4 pp and 0.7 pp compared to the fall 2015 and fall 2014 cohorts, respectively (see **Dashboard Figure 2**). The share of students no longer enrolled increased 0.3 pp to 28.8 percent.

**Figure 1. Six-Year Completion Rates by Starting Institution Type: 2006 – 2016 Entering Cohorts**



Note: Over the years, three significant data reporting and processing changes occurred that improved the data shown. Beginning in 2011, two changes improved the definition of first-time beginning college students: (1) current dual enrolled students (those taking college courses while in high school) were excluded (impacting mainly two-year colleges); and (2) data enhancements enabled reliable exclusion of students with prior enrollments over a longer historical timeframe (impacting mainly older students). After these changes, year-over-year comparisons can still be reliably made. Trends should be interpreted with caution, however, because removing current dual enrolled students caused the completion rate to decline at two-year colleges (see Methodological Notes). The third change relates to improved student-level data matching in the Clearinghouse database, causing unusually large rate changes from 2012 to 2013, but the trendlines for 2006-2012 and 2013-2016 can be considered as reliable to use.

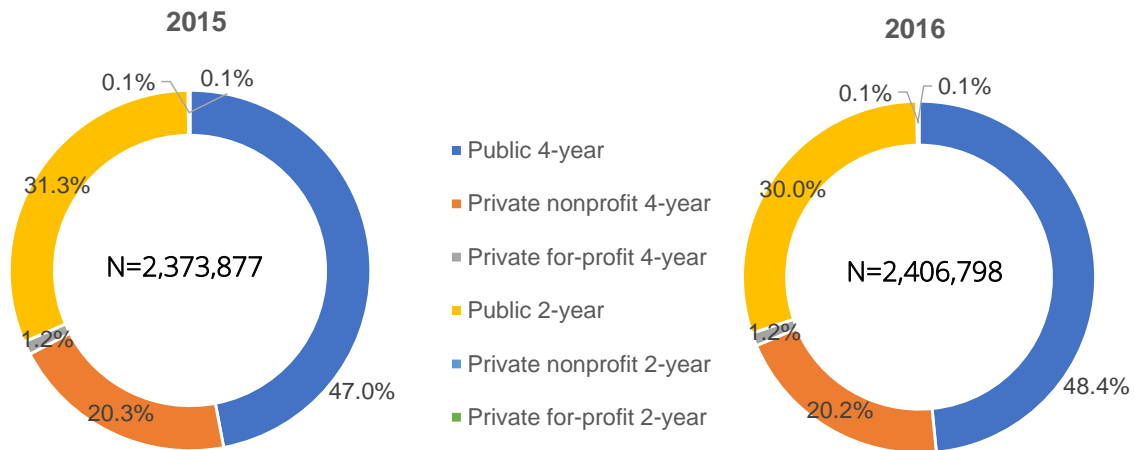
**Table 1. Completion Rates with and without 25 Community Colleges Converting to Four-Years in 2016**

	Six-Year Completion Rates (%)				Change from Previous Year (percentage point, pp)			
	Public 4-Years		Public 2-Years		Public 4-Years		Public 2-Years	
	In Report	Without 25	In Report	With 25	In Report	Without 25	In Report	With 25
Overall	68.0	69.4	43.1	42.6	(-1.0 pp)	(+0.3 pp)	(+0.9 pp)	(+0.4 pp)
Race/Ethnicity								
Asian	80.5	81.5	53.4	53.1	(-0.4 pp)	(+0.6 pp)	(+2.2 pp)	(+1.8 pp)
Black	50.2	51.2	31.1	30.8	(-1.1 pp)	(-0.0 pp)	(+1.0 pp)	(+0.7 pp)
Latinx	57.1	59.9	37.9	37.1	(-3.2 pp)	(-0.4 pp)	(+1.0 pp)	(+0.3 pp)
White	73.5	74.3	50.6	50.2	(-0.8 pp)	(-0.1 pp)	(+0.8 pp)	(+0.5 pp)
Age Category								
20 or Younger	69.4	70.5	44.2	43.8	(-1.0 pp)	(+0.1 pp)	(+0.6 pp)	(+0.2 pp)
21 to 24	60.2	62.2	35.2	34.7	(-1.4 pp)	(+0.6 pp)	(+2.5 pp)	(+2.0 pp)
Older than 24	56.3	59.0	39.7	38.9	(-1.4 pp)	(+1.3 pp)	(+1.8 pp)	(+0.9 pp)
Gender								
Female	71.4	72.7	46.3	45.8	(-1.0 pp)	(+0.3 pp)	(+1.0 pp)	(+0.5 pp)
Male	64.1	65.5	40.8	40.3	(-1.0 pp)	(+0.4 pp)	(+0.8 pp)	(+0.2 pp)
States								
California	66.4	76.3	38.5	37.2	(-8.4 pp)	(+1.5 pp)	(+1.3 pp)	(+0.0 pp)
Colorado	64.9	66.8	43.6	42.2	(-2.6 pp)	(-0.7 pp)	(+0.4 pp)	(-1.0 pp)
Michigan	70.7	72.4	40.6	39.9	(-0.7 pp)	(+1.0 pp)	(+0.3 pp)	(-0.4 pp)
Washington	57.5	59.8	44.6	43.2	(-3.0 pp)	(+1.5 pp)	(+1.1 pp)	(-0.3 pp)

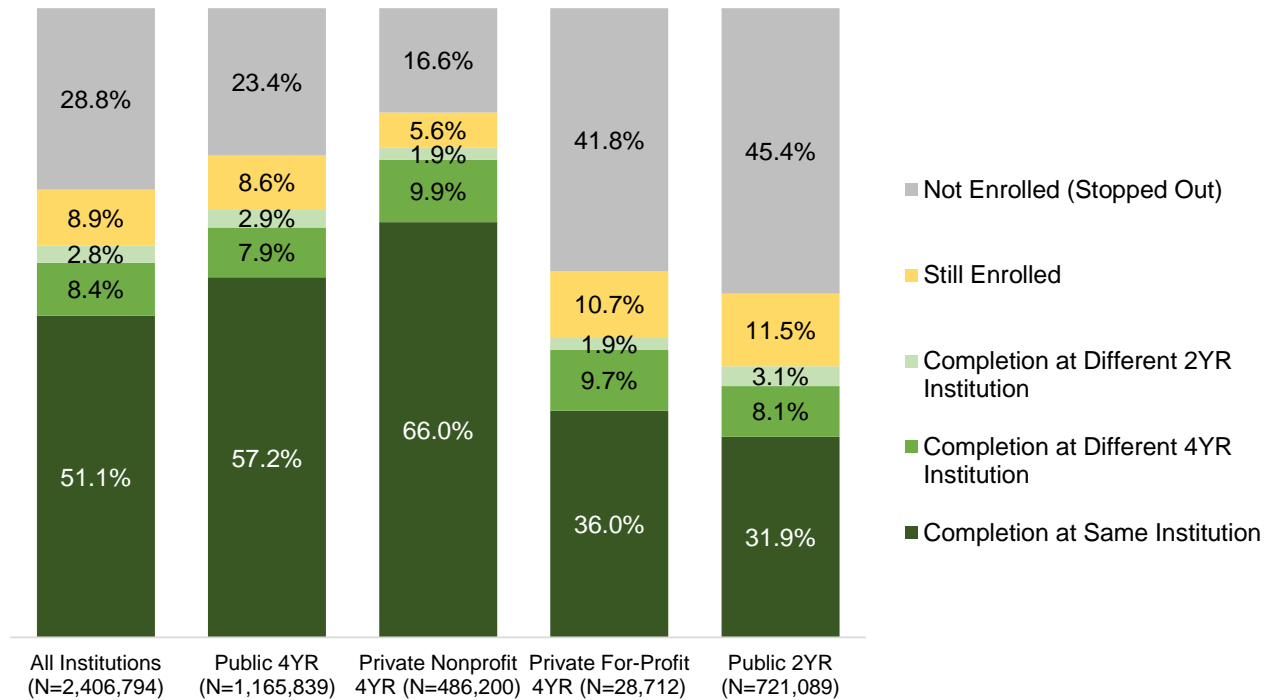
Only public institutions were affected by this sector reclassification. These 25 institutions enrolled 43,000 starters, 1.8 percent of the fall 2016 cohort. With a growing number of reclassifications, we will report completion rates for primarily associate degree granting institutions in a separate category starting next year. While reclassifications have occurred previously, the degree to which reclassifications affect data reporting is unprecedented in 2016.

Public four-year institutions saw their starter headcounts increase by over 50,000 students (+4.5%) and grew their share of starters from 47 percent in fall 2015 to 48.4 percent in fall 2016 (see **Figure 2**). Most of this headcount increase is directly attributable to the 25 institutions' reclassification as public four-year institutions, inflating headcounts by nearly 43,000 (1.8% of the overall starting cohort, see Table 1). Excluding this reclassification, public four-year institutions still saw headcounts increase in this cohort of students, but the increase was approximately 7,000 students (+0.6%). Community colleges saw their starter headcounts decline by 23,000 (-3.1%), which is also related to the IPEDS sector reclassification (see Table 1). Had these students not been recategorized to the public four-year sector, community college headcounts would have *increased* by 20,000.

**Figure 2. Entering Cohort by Starting Institution Type: 2015 and 2016**



**Figure 3. Six-Year Outcomes by Starting Institution Type: 2016 Cohort**



**2. Six-year completion rates improved in over half of states, but only five states saw gains of 1 percentage point or more. This is markedly different from the previous cohort's trend of two-third of states seeing rate gains of at least 1 percentage point.**

Completion rates improved for most states (28 out of the 49 states with sufficient data coverage for reporting). While most gains seen at the state-level were small (less than 1 pp), five states saw gains over 1 pp: Rhode Island, Kentucky, Utah, Louisiana, and Maryland (see Figure 4).

Nationally, public four-year completion rates dropped by 1 pp, driven by declines seen in 24 states, with the largest declines in Missouri (-2.2 pp), and Vermont (-2.1 pp). The declines seen in California, Washington, and Colorado are related to the reclassifications (see Table 1). Four states saw rates increase by over 1.5 pp (Idaho, +1.9 pp; Mississippi, +1.8 pp; Oregon, +1.7 pp; and Kansas, +1.6 pp).

At community colleges, completion rate improvements were driven by increases across 30 states, and four states grew more than 2.5 pp compared to fall 2015 (South Dakota, +4.1 pp; Kentucky, +3.0 pp; New Hampshire +2.9 pp; West Virginia +2.7 pp). Completion rates declined in 12 states, with the largest declines in North Dakota (-2.5 pp), Montana (-1.5 pp), and Wisconsin (-1.2 pp). States where institutions were reclassified saw minimal community college impacts (see Table 1).

**Figure 4. Change from Previous Year in Six-Year Completion Rate by State, All Sectors**

State	Fall 2016 percent	2015-2016 pp	State	Fall 2016 percent	2015-2016 pp
Alabama	60.5%	0.5	Montana	55.6%	-0.1
Alaska	34.6%	-0.6	Nebraska	62.7%	-0.6
Arizona	52.9%	-0.6	Nevada	43.2%	-1.3
Arkansas	59.3%	0.4	New Hampshire	62.8%	-1.5
California	55.5%	0.2	New Jersey	62.7%	-0.4
Colorado	61.3%	-0.8	New Mexico	49.1%	-0.5
Connecticut	67.6%	-0.3	New York	69.1%	0.8
Delaware		*	North Carolina	65.6%	0.6
Florida	60.7%	0.3	North Dakota	67.5%	-1.1
Georgia	62.5%	-0.1	Ohio	66.0%	-0.1
Hawaii	53.0%	0.7	Oklahoma	52.9%	0.1
Idaho	53.4%	0.2	Oregon	56.9%	-0.2
Illinois	65.3%	0.6	Pennsylvania	71.9%	-0.5
Indiana	66.4%	0.8	Rhode Island	76.5%	2.1
Iowa	69.9%	-0.2	South Carolina	62.5%	0.8
Kansas	60.6%	0.6	South Dakota	69.4%	0.2
Kentucky	61.4%	1.1	Tennessee	60.3%	0.9
Louisiana	57.1%	1.0	Texas	57.6%	-0.7
Maine	63.3%	0.4	Utah	56.4%	1.1
Maryland	61.0%	1.0	Vermont	73.7%	-0.7
Massachusetts	74.4%	0.9	Virginia	67.5%	0.6
Michigan	62.1%	0.7	Washington	58.7%	-0.8
Minnesota	70.1%	0.2	West Virginia	59.4%	0.3
Mississippi	59.9%	0.3	Wisconsin	70.0%	-0.4
Missouri	61.5%	-1.5	Wyoming	58.2%	0.6

**National Average = 62.3% (+0.1 pp)**



### 3. Completion rates decreased for White, Black, and Latinx students, but increased for Asian and Native American students. The completions gap between men and women is steadily growing and is the widest seen since 2008.

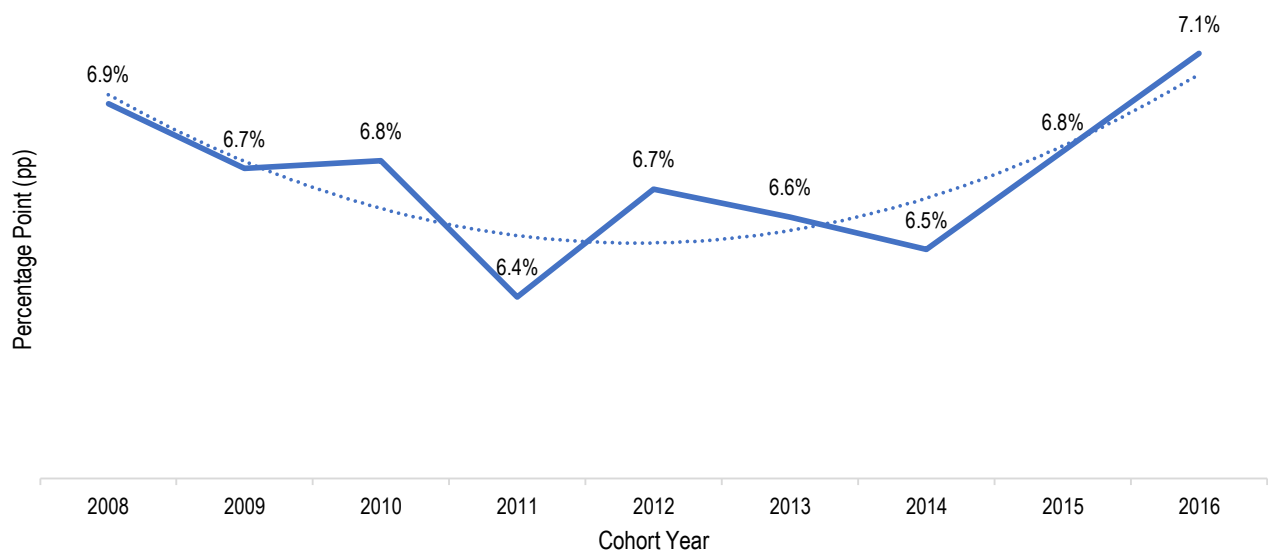
The national six-year completion rates for the 2016 entering cohort decreased by about half a percentage point for White, Black, and Latinx students compared to the 2015 cohort (-0.6, -0.4, and -0.6pp, respectively, see [Dashboard Figure 5](#)).

Community college completion rates grew for all racial and ethnic groups reported, between 0.8 pp (White) and 2.2 pp (Asian), but this was not the case at public or private non-profit four-year institutions. Public four-year completion rates declined across all racial and ethnic groups reported, most steeply among Latinx (-3.2 pp) and Black (-1.1 pp) students. The Black student decline is entirely due to the IPEDS sector reclassification. Excluding the 25 institutions recategorized as public four-year institutions, Black completion rates remain unchanged, and Latinx declines were considerably smaller (-0.4 pp, see Table 1). Private nonprofit four-year schools also saw the largest declines among Black (-2.1 pp) and Latinx students (-1.7 pp).

Nationally, completion rates of Black women declined slightly more than men (-0.4 pp for Black women vs. -0.1 pp for Black men) while rates of Latinx men declined slightly more than women (-0.4 pp for Latinx women vs. -0.8 pp for Latinx men). Completion rates for white men and women both declined at the same rate (-0.5 pp). For Asian students, women rates increased more than men (+1.2 pp vs. +0.7 pp for men).

The gender gap in completion rates is steadily growing. In the last two years, it has increased by 0.6 pp and is currently the highest since 2008. The fall 2016 national six-year completion rate for men was 58.5 percent and 65.6 percent for women – a gap of 7.1 percentage points (see [Figure 5](#)) and is driven primarily by the gaps seen at public four-year institutions (7.3 pp; see [Dashboard Figure 9](#)).

**Figure 5. National Completion Rate Gap by Gender: 2008 to 2016 Entering Cohorts**



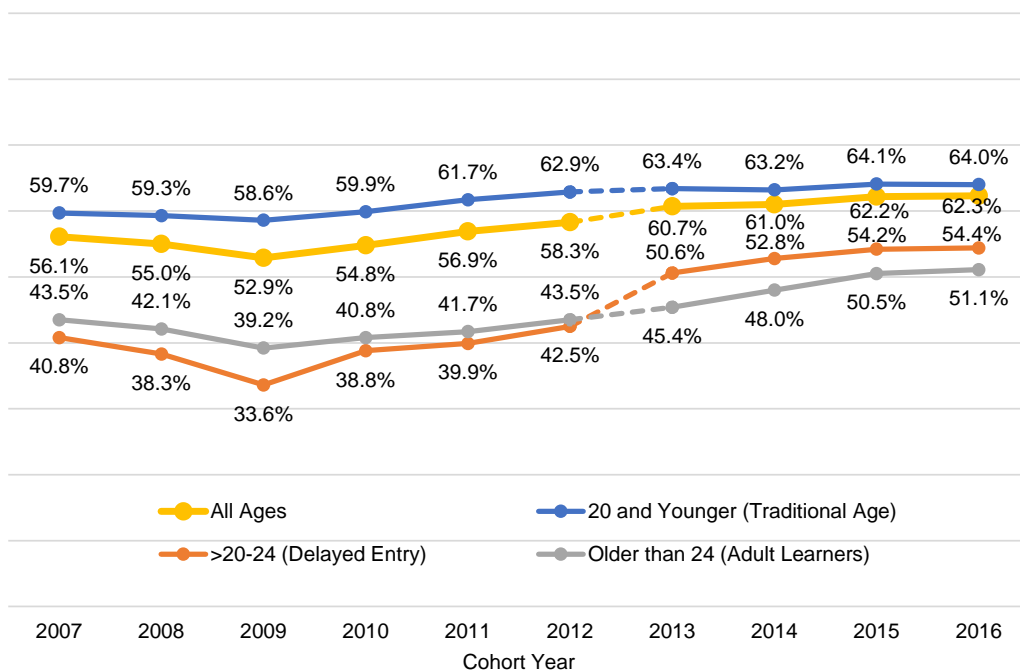
**4. Traditional aged college students beginning in fall 2016 saw no change in their overall six-year completion rate. Older students continue to make gains, but still lag behind traditional aged students.**

Traditional aged college students beginning in fall 2016 saw no change in their overall six-year completion rate (-0.1%, see Figure 6). This follows the fall 2015 cohort’s gain of nearly a percentage point over the fall 2014 cohort. Public four-year institutions saw a 1 pp decline in completion rates among traditional aged students, although the rates are unchanged when accounting for the IPEDS reclassification (see Table 1), and private nonprofit four-year institutions saw a 0.6 pp decline. Community colleges, in contrast, saw completion rates improve by 0.6 pp.

Nationally, adult learners (students over 24 years old at first entry) saw the largest one-year increase in the six-year completion rate. This group, comprising 8.3 percent of the fall 2016 entering cohort (see Figure 7) had a completion rate of 51.1 percent, a 0.6 pp increase over the fall 2015 cohort and a 3.1 pp increase compared to the fall 2014 cohort. The fall 2016 gains among adult learners were driven by community college starters (+1.8 pp), while this age group lost ground at both public (-1.4 pp) and private nonprofit four-year institutions (-0.3 pp).

Though completion rates for older students improved in recent years, traditional aged students continue to have higher completion rates (64.0% versus 54.4% for 20-24 and 51.1% for over 24, see Figure 6).

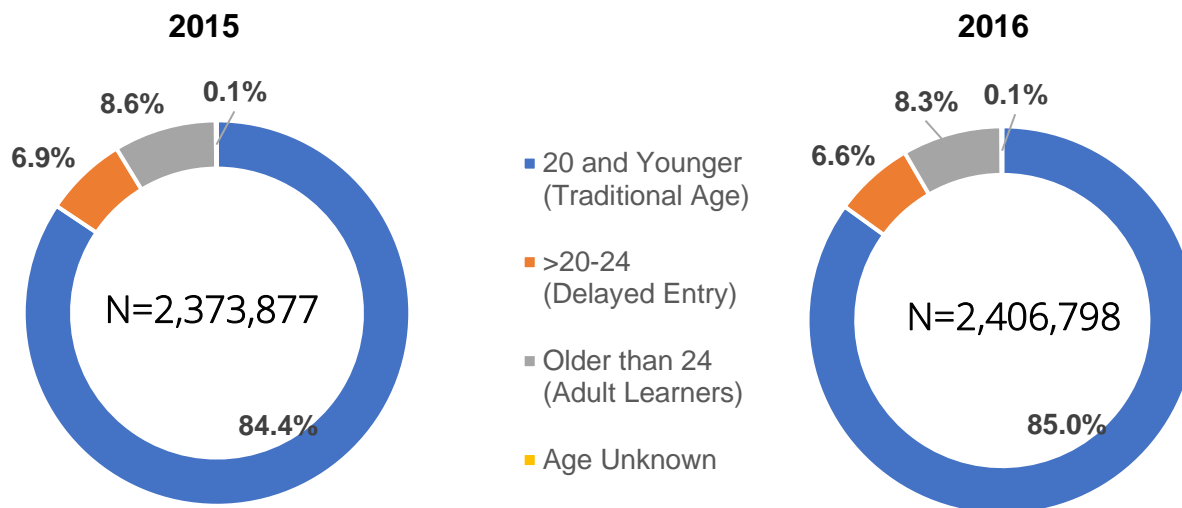
**Figure 6. Six-Year Completion Rates by Student Age at First Entry: 2007-2016 Entering Cohorts**



Note: Over the years, three significant data reporting and processing changes occurred that improved the data shown. Beginning in 2011, two changes improved the definition of first-time beginning college students: (1) current dual enrolled students (those taking college courses while in high school) were excluded (impacting mainly two-year colleges); and (2) data enhancements enabled reliable exclusion of students with prior enrollments over a longer historical timeframe (impacting mainly older students). After these changes, year-over-year comparisons can still be reliably made. Trends should be interpreted with caution, however, because removing current dual enrolled students caused the completion rate to decline at two-year colleges (see Methodological Notes). The third change relates to improved student-level data matching in the Clearinghouse database, causing unusually large rate changes from 2012 to 2013, but the trendlines for 2007-2012 and 2013-2016 can be considered as reliable to use.



**Figure 7. Entering Cohort by Student Age at First Entry: 2015 and 2016**



**5. The national eight-year completion rates did not change between the fall 2013 and fall 2014 cohorts (65.2%). An additional 4.5 percent of fall 2013 cohort and 4.2 percent of the fall 2014 cohort completed in their seventh and eighth years. Across both cohorts, Latinx and Asian students saw higher rate gains during their seventh and eighth years relative to their peers.**

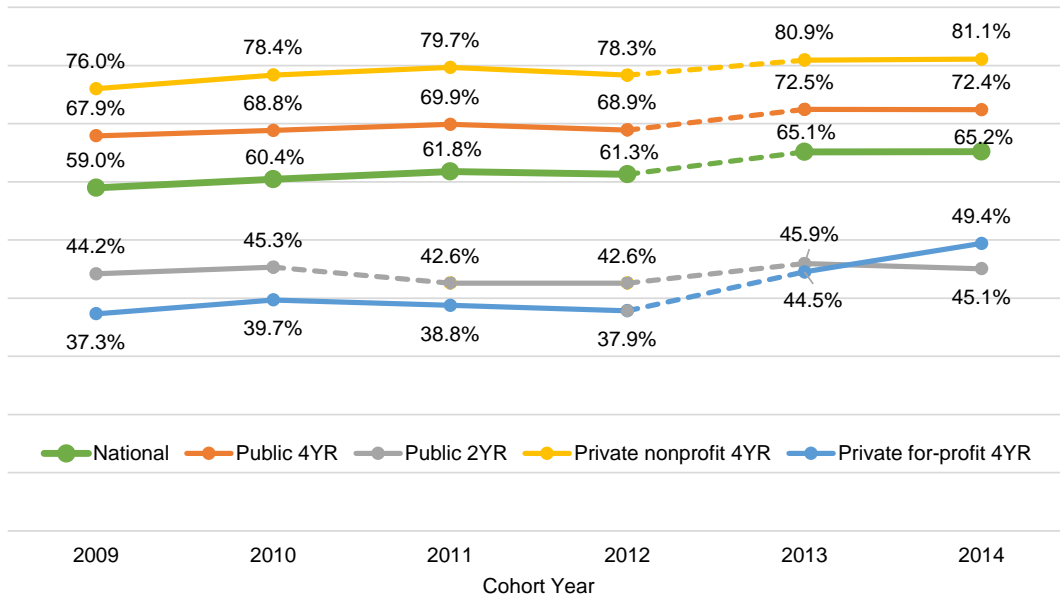
The national eight-year completion rates for both the fall 2013 and fall 2014 cohorts are nearly identical (+0.1 pp). The 2014 rate jumped 4.9 percentage points at private for-profit four-year institutions, however, surpassing community colleges (which lost 0.9pp) for the first time within the six years tracked (see Figure 8). Rates were virtually unchanged at four-year public and private nonprofit institutions.

When extending the completion timeframe from six years to eight years, these cohorts both saw similar increases in completion rates. The eight-year completion rate of the fall 2013 cohort was 4.5 pp higher than the six-year completion rate (from 60.7% to 65.1%) and the eight-year rate for the fall 2014 cohort was 4.2 pp higher than the six-year rate (61% to 65.2%).

All racial and ethnic groups reported in the fall 2013 cohort saw between 4.2 pp and 5.8 pp rate increases when extending the completion timeframe from six to eight years. Latinx and Asian rates saw the largest improvements (+5.8 pp to 56.1% for Latinx students; +5.7 pp to 77.7% for Asian students) while White rates saw the smallest (+4.2 pp to 72.2%, see Figure 9). This trend repeated when observing the fall 2014 cohort outcomes; while all race and ethnicity groups improve their outcomes between 4 pp and 5.3 pp, Latinx and Asian students see the largest increases when adding an additional two years to the observation window (Latinx: +5.3 pp to 55%; Asian: +5.2 pp to 78.6%) while White students see the least gains (+4 pp to 71.9%).

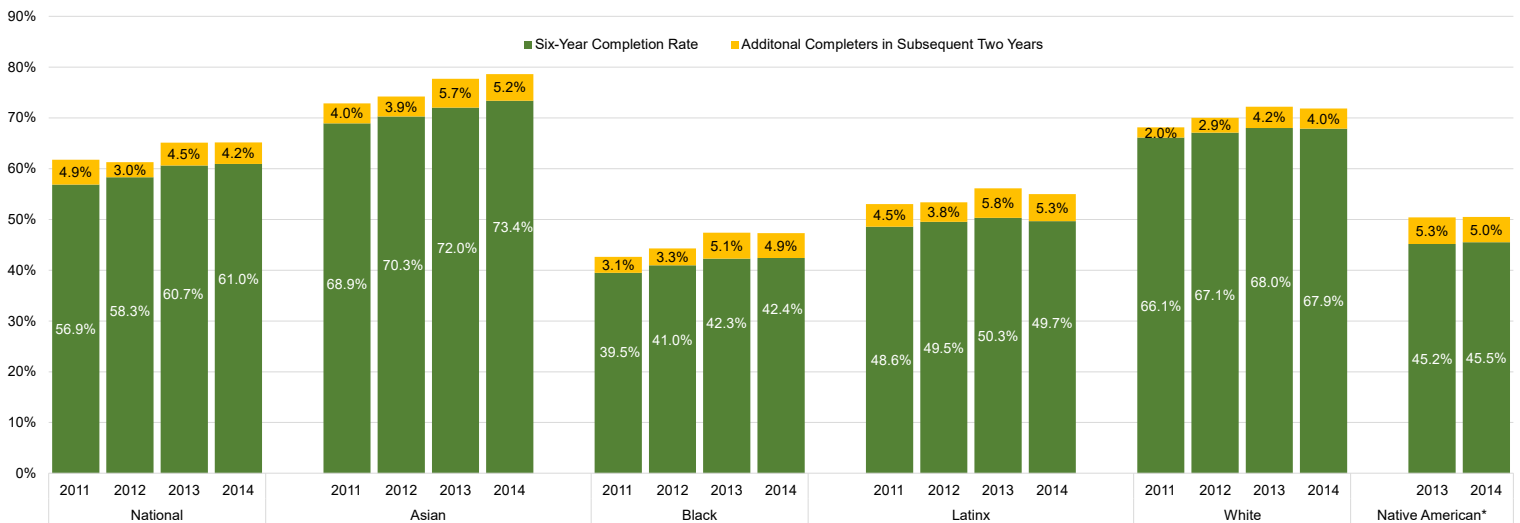
Latinx eight-year completion rates declined 1.1 pp to 55 percent across all sectors between fall 2013 and fall 2014. At public four-year institutions, Latinx eight-year completion rates declined by 0.9 pp to 64.5 percent while at community colleges, they fell by 1.5 pp to 41.1 percent. Asian rates increased nationally (+0.9 pp) to 78.6 percent, driven by increases seen at public two- and four-year institutions.

**Figure 8. Eight-Year Completion Rates by Starting Institution Type: 2009-2014 Entering Cohorts**



Note: Over the years, three significant data reporting and processing changes occurred that improved the data shown. Beginning in 2011, two changes improved the definition of first-time beginning college students: (1) current dual enrolled students (those taking college courses while in high school) were excluded (impacting mainly two-year colleges); and (2) data enhancements enabled reliable exclusion of students with prior enrollments over a longer historical timeframe (impacting mainly older students). After these changes, year-over-year comparisons can still be reliably made. Trends should be interpreted with caution, however, because removing current dual enrolled students caused the completion rate to decline at two-year colleges (see Methodological Notes). The third change relates to improved student-level data matching in the Clearinghouse database, causing unusually large rate changes from 2012 to 2013, but the trendlines for 2009-2012 and 2013-2014 can be considered as reliable to use.

**Figure 9. Eight-Year Cohort Completion Rates by Race and Ethnicity: 2011-2014 Entering Cohorts**



\* Data for 2011 and 2012 are not available for Native American.

Note: Over the years, three significant data reporting and processing changes occurred that improved the data shown. Beginning in 2011, two changes improved the definition of first-time beginning college students: (1) current dual enrolled students (those taking college courses while in high school) were excluded (impacting mainly two-year colleges); and (2) data enhancements enabled reliable exclusion of students with prior enrollments over a longer historical timeframe (impacting mainly older students). After these changes, year-over-year comparisons can still be reliably made. Trends should be interpreted with caution, however, because removing current dual enrolled students caused the completion rate to decline at two-year colleges (see Methodological Notes). The third change relates to improved student-level data matching in the Clearinghouse database, causing unusually large rate changes from 2012 to 2013, but the trendlines for 2011-2012 and 2013-2014 can be considered as reliable to use.

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## **Summary**

The overall completion rates of the fall 2016 cohort hardly changed from the 2015 cohort (+0.1 percentage points). This trend differed at the sector level, with improved community college completion rates (+0.9 percentage points) while public four-year and private nonprofit four-year institutions declined.

While most states saw completion rate gains continue this year, progress is slower and only five saw gains of 1 percentage point or larger. This is markedly different from the prior year, when two-thirds of states saw gains of at least 1 percentage point. Nationally, community college completion rate improvements were driven by growth in 30 states. Similarly, the decline in public four-year completion rates were driven by declines in 24 states.

The national six-year completion rates decreased at similar rates among White, Black, and Latinx students, by approximately half a percentage point over the 2015 cohort but increased for Asian and Native American students. Completion rates of Black women declined more steeply compared their male counterparts. The gender gap overall has been steadily increasing to the largest degree seen since 2008, which is most pronounced at public four-year institutions.

Shifting student enrollment patterns and demographics of the fall 2016 cohort may have contributed to the change in completion rates this year; however, a surge in the institutional sector reclassification of 25 institutions from community colleges into public four-years this year has obscured the trends at the sector level. Nationally, the fall 2016 cohort had nearly 33,000 more students than the previous cohort. Irrespective of sector, this cohort had a larger share of traditional aged students (+0.6 pp), who typically finish college at higher rates than older students.

Public four-year institutions saw their starting cohort headcounts increase by over 50,000 students (+4.5%) and grew their share of starters from 47 percent in fall 2015 to 48.4 percent in fall 2016. Most of this headcount increase is attributable to reclassified institutions. Which also contributed to the decline in community college headcounts. Future iterations of this report will track these reclassified community colleges in a separate category of “primarily associate-granting four-years”. Taken together, the administrative, demographic, and enrollment pattern changes identified in this report underscore the importance of considering many factors that may contribute to changes in completion rates over time. None of these, however, are intended to diminish the influence of institutional practices, economic forces, state and federal policies, or student behaviors.

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## Methodological Notes

This report examines six-year college student success outcomes, focusing primarily on degree and certificate completion of a cohort of first time-in-college, degree-seeking students who started their postsecondary education at U.S. colleges and universities in the fall of 2016 through June 30, 2022. Outcomes examined include completion (i.e., receipt of any postsecondary credential by the end of the study period), major at completion, persistence (i.e., having enrollment records at any postsecondary institution during the last year of the study period), and stop-out without completion (i.e., having no enrollment records at any postsecondary institution during the last year of the study period). The report mainly focuses on students' first ever completions, with further distinctions drawn between completions awarded at the institution where a student first enrolled (his or her starting institution) and those awarded at an institution other than their starting institutions. For students who started at a two-year public institution, this report also presents an overview of their completions at a four-year institution, either as a first completion (i.e., those who completed at a four-year institution without having first earned a credential at a two-year institution<sup>1</sup>) or as a subsequent degree after a first completion awarded in the two-year sector.

<sup>1</sup> Throughout this report, "two-year institution" is used broadly to designate institutions offering both associate degrees and less-than two-year degrees and certificates.

### Data Coverage

The National Student Clearinghouse currently collects data from more than 3,600 postsecondary institutions, which represent 97 percent of the nation's postsecondary enrollments in degree-granting institutions, as of 2021. The enrollment data used in this report provide an unduplicated headcount for the fall 2016 first-time college entering student cohort. Clearinghouse data track enrollments nationally and are not limited by institutional and state boundaries. Moreover, because this database is comprised of student-level data, researchers can use it to link concurrent as well as consecutive enrollments of individual students at multiple institutions.

### Cohort Identification, Data Cut, and Definitions

This report examines completion, over a span of six years, for the cohort of first time-in-college degree-seeking students who started their postsecondary studies at U.S. colleges and universities in the fall of 2016 for six-year outcomes (through June 30th, 2022). To limit the cohort to first-time undergraduate students only, the study uses data from the Clearinghouse's enrollment reporting and DegreeVerify services to confirm that students included in the study fulfilled the following conditions:

1. Enrolled in a Title IV degree-granting institution in fall 2016, excluding territories outside the U.S. (e.g., Guam, Puerto Rico, or the U.S. Virgin Islands).
2. Did not have a previous enrollment record, as shown in the Clearinghouse data, prior to the first day of enrollment in the fall of 2016, unless the previous enrollment record was before the student turned 18 years old (qualified as former dual enrollment students);
3. Did not receive any degree or certificate from a postsecondary institution prior to the first day of enrollment in fall 2016, according to Clearinghouse data unless the award date was before the student turned 18 years old (dual enrollment);
4. Had at least one legitimate enrollment status throughout the study period; that is, enrolled for at least one term with full-time, part-time (i.e., halftime or less than half-time), or withdrawal status<sup>2</sup>;
5. Showed intent to seek a degree or certificate. That is:
  - For students who started at four-year institutions, enrolled at least one term with an intensity of halftime or higher.
  - For students who started at two-year institutions, either:
    - Enrolled full time for at least one term before August 10, 2016, or
    - Enrolled three-quarter time for at least one term or half time for any two terms before December 31, 2017<sup>3</sup>

<sup>2</sup> The Clearinghouse receives enrollment status data as full-time, half-time, less-than-half-time, withdrawal, or other statuses from its participating institutions.

<sup>3</sup> We excluded 214,777 students who began at two-year institutions as non-degree-seeking students as a result.

### Race and Ethnicity

The race and ethnicity categories include Asian, Black (of non-Latinx origin), Latinx, White, Native American, or Other. The Other category includes Native Hawaiian or other Pacific Islander, International, Two or More Races, and Unknown/Missing. Eleven percent of the data are unknown or missing race/ethnicity in the 2016 cohort.

### Former Dual Enrollment Students

Beginning in the fall 2011 entering cohort, our definition of first-time student cohort excludes current dual enrollment students, impacting largely two-year institutions. Interpret the trends with caution for two-year starters because removing current dual enrollment students caused the completion rate to decline. The cohort used in this study only includes former dual enrollment students: first-time college students who had previously taken dual enrollment courses. These are the students who enrolled in college courses prior to fall 2016 while still in high school. Students were identified as former dual enrollment students if their enrollment or degree record

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prior to fall 2016 was before the student turned 18 years old. Former dual enrollment students represent 22.8 percent of the fall 2016 cohort. As a proportion of the sample for each sector, former dual enrollment students represent 26.4 percent of the students who started in four-year public institutions, 19.6 percent of the students who started in two-year public institutions and 20 percent of those who started in four-year private nonprofit institutions. Only 8.7 percent of the students who started in four-year private for-profit institutions had prior dual enrollments.

### **Enrollment Intensity**

In this report, enrollment intensity is classified as exclusively full-time, exclusively part-time, or mixed enrollment (including both full-time and part-time enrollments) throughout the study period. Each of the enrollment type is based on students' enrollments across all terms in which the student was enrolled. Hence, the report does not exclude stop-outs through the first completion or, for non-completers, through the entire study period. In establishing students' enrollment intensity in this way, enrollments during summer terms (defined as terms with both the start date and the end date falling between May 1 and August 31 in any given year) and short terms (defined as terms lasting less than 21 days) were excluded from consideration.

For terms in which a student showed concurrent enrollment records (i.e., records that overlapped by 30 days or more), the two highest-intensity enrollments were considered. For example, a student concurrently enrolled half-time at two institutions was categorized as enrolled full-time for that term. In doing this, we create one single enrollment record from a set of concurrent enrollment records. The enrollment status for the single enrollment record is defined as full-time if (1) for terms with concurrent enrollments, the two highest-status enrollment records included at least one full-time enrollment, or one three quarter-time enrollment and one at least less than half-time enrollment; or (2) for terms with concurrent enrollments, the two highest-status enrollment records both reflected half-time enrollment. The enrollment status for the single enrollment record is defined as half-time, if for terms with concurrent enrollments, the two highest status enrollment records included some combination of half-time and less than half-time enrollments, but no full-time enrollment, and no more than one half-time enrollment. Overall, for each term under consideration (i.e., all terms except summer terms and short terms—less than 21 days—up through the first completion, or, if no completion, throughout the entire study period), the “exclusively fulltime enrollment” designation was assigned to students whose enrollment showed exclusively full-time enrollment for all terms. The “part-time enrollment” designation was assigned to students whose enrollment for each term under consideration showed exclusively three-quarter time, half-time or less than half-time enrollment. The category of mixed enrollment was applied to

students who showed a combination of full-time and part-time enrollments across the terms under consideration. Finally, students who showed records indicating withdrawal (i.e., students who were enrolled, but withdrew before the term ended) but no full-time or part-time enrollments were randomly assigned to an enrollment intensity category.

### **Concurrent Completion**

For this report, we examined completion by first-time students at either two-year or four-year institutions. We defined completion as having obtained a degree or certificate at any institution within the six-year study period (i.e., by June 30, 2022). Clearinghouse data provide a unique headcount of U.S. college enrollments during each term, which allows for the tracking of individuals including those with concurrent completion. In preparing data for this report, a small number of individuals showed more than one completion awarded at multiple institutions on the same day. In these instances, a primary completion record was selected using decision rules specific to the sector of the student's starting institution.

The first set of decision rules was applied to students with concurrent completions who started at a two-year institution:

1. Concurrent Completions at Two Different Two-Year Institutions
  - Same institution over different institution: Completions at the starting institution were selected over completions at other institutions.
  - Random selection: If the first decision rule did not result in a single completion record being selected, then a completion record was selected at random.
2. Concurrent Completions at a Two-Year Institution and a Four-Year Institution
  - Two-year then four-year: The two-year degree completion was considered the first completion and the four-year degree completion was considered a subsequent completion.
3. Concurrent Completions at Two or More Four-Year Institutions
  - Random selection: If a student started at a two-year institution but later completed at two or more four-year institutions concurrently, then a completion record was selected at random.

The second set of decision rules was applied to students who started at four-year institutions and later showed concurrent completion records:

1. Same institution over different institution: Completions at the starting institution were selected over completions at other institutions.
2. Four-year over two-year: If the first decision rule did not result in the selection of a single completion record, then completions at four-year institutions were selected over those at two-year institutions.

3. Random selection: If neither of the first two decision rules resulted in the selection of a single completion record, then a completion record was selected at random.

### **Imputation of Values for Gender**

The Clearinghouse's coverage of student gender has increased dramatically for enrollments occurring in recent years. However, imputation of gender for the majority of enrollment records is still necessary in order to use the data for research studies using older cohorts. To meet this need, the Research Center developed an imputation process based on first names. Previously submitted name gender pairs throughout the Clearinghouse database are used to determine the probability of any first name being associated with either gender. To increase the accuracy of the imputation process, the Research Center also draws on name-gender data from the Social Security Administration (SSA) and the U.S. Census Bureau. Because the Clearinghouse collects transactional data, its data contain many more unique first names than other sources. The imputation used only those pairs in which the name occurred in at least two instances and was associated with a single gender in at least 95 percent of the instances. The SSA and Census data sets were used to ensure that name-gender pairs were consistent across every data set in which they occurred and to enhance the imputation process by contributing name-gender pairs that did not occur in the Clearinghouse data. The imputation process that yielded additional gender codes produced a total gender coverage rate of 94 percent.

### **Imputation of Missing DegreeVerify Graduation Data**

The Clearinghouse collects graduation information from its participating institutions via two data reporting services: Enrollment Reporting and DegreeVerify. Enrollment Reporting has higher data coverage rates, but includes only basic completion information such as graduation indicator and the date of graduation. For the fall 2016 cohort, Enrollment Reporting covered 97 percent of all the students in Title IV degree-granting institutions listed in IPEDS (including 99 percent of the students in public institutions, 95 percent in private nonprofit institutions, and 71 percent in private for-profit institutions). DegreeVerify includes enhanced information on completions, including degree title, major, level, and CIP code, but covered only 94 percent of enrollments in 2016. Institutions may participate either in Enrollment Reporting alone or in both services. Completions data for this report included information drawn from either service. An analysis conducted by the Clearinghouse on the 2016 cohort found that graduation data for the institutions that participated in DegreeVerify were relatively more complete for some of the years covered in this study than those for institutions that participated only in Enrollment Reporting, biasing completion rates slightly downwards for institutional sectors with lower participation rates in

DegreeVerify. To correct for this bias, the Research Center conducted a randomized imputation procedure for missing graduation data among students at non-DegreeVerify institutions who were no longer enrolled but for whom outcome data were missing (that is, for whom the institution had reported neither a graduation nor a withdrawal status in their Enrollment Reporting). This involved comparing the Enrollment Reporting and DegreeVerify records for institutions that participated in both services and estimating, for each institution type, the average percentage of students with missing outcomes in the enrollment data who had a reported graduation in the DegreeVerify data. We further specified these underreporting rates by taking into account student age and the academic year. We then used random assignment of graduation outcomes to students with missing data at the institutions that did not participate in DegreeVerify to match each institution's underreporting rate for each student age group and for every year of the study to the average rate for similar students at institutions of the same type that did participate in DegreeVerify. This imputation was performed only for students with missing outcomes data at institutions that did not participate in DegreeVerify. It is based on the typical underreporting of graduation outcomes from similar institutions that participate in both Enrollment Reporting and DegreeVerify. The table below shows, for each institution type, the percentage of the starting cohort for whom graduation data were imputed:

Starting Institutional Sector	Percentage of the Cohort with an Imputed Completion
Private For-Profit Two-Year	0.26%
Private Nonprofit Two-Year	0.42%
Community College	0.41%
Private For-Profit Four-Year	0.25%
Private Nonprofit Four-Year	0.28%
Public Four-Year	0.27%
Total	0.31%

### **Adjusting Noncoverage through Weighting by State and Institution Type**

The institutions participating in the Clearinghouse Enrollment Reporting service do not cover 100 percent of all Title IV, degree-granting institutions in the U.S. To account for possibilities of not capturing a student's enrollment outcome because of non-coverage of Clearinghouse data, weights were calculated using the 2020 coverage rate of the sector, control, and state of the institution where a student was enrolled for the last enrollment record. Our data covers three different groups of students: First, students who completed a degree at the starting institution or were still enrolled at the starting institution by the end of the study period. Second, students who completed a degree or were still enrolled at a different institution by the end of the study period. And third, students who stopped out by the end of the study period. However, the



number of students who stopped out is likely overestimated due to under coverage. Specifically, students that show up as no longer enrolled may have potentially transferred to an institution that does not submit data to the Clearinghouse. Therefore, the number of stop-outs in the U.S. is likely lower than observed in our data, and the number of transfer students is likely higher. To take this into account, we overcount transfer students and undercount stop-outs (“missings”). For students who completed a degree or were still enrolled at a different institution by the end of the study period, a “transfer” weight > 1 was applied. This transfer weight is based on the coverage of the sector, control, and state of the institution in which the student was enrolled for the last enrollment record, as calculated by the formula provided below:

$$\text{Transfer Weight} = \frac{\text{Transfer Counts} + [\text{Missing Counts} \cdot \text{Noncoverage Rate}] + \frac{\text{Transfer Counts}}{\text{Nonmissing Counts}}}{\text{Transfer Counts}} > 1$$

For students who stopped out by the end of the study period and for whom any further observations are missing, a “missing” weight < 1 was applied. This missing weight is based on the coverage of the sector, control, and state of the institution in which the student was enrolled for the last enrollment record, as calculated by the formula provided below:

$$\text{Missing Weight} = \frac{\text{Transfer Counts} - [\text{Missing Counts} \cdot \text{Noncoverage Rate}] + \frac{\text{Transfer Counts}}{\text{Nonmissing Counts}}}{\text{Transfer Counts}} < 1$$

Note for completeness that we assign a weight of one to the first group of students who completed a degree at the starting institution or were still enrolled at the starting institution by the end of the study period.

### Data Limitations

The data limitations in this report center mainly on the data coverage, the methods used for cohort identification, and the definition of key constructs (as outlined above). The representation of private for-profit institutions in the Clearinghouse data is lower than that of other institution types, with 82 percent coverage for four-year private for-profit institutions in fall 2016 compared to 96 percent and 99 percent respectively for four-year private nonprofit institutions and four-year public institutions. Despite the challenges presented by low participation in the early years covered in this report, current Clearinghouse data nevertheless offer near-census national coverage, representing 97 percent of U.S. postsecondary enrollments. In an effort to correct for coverage gaps in this study, data were weighted (as explained above).

Data limitations resulting from the cohort identification methods used in preparing this report should also be noted.

Because the Clearinghouse data on designations for class year are incomplete, the researchers identified first-time undergraduate students via two indirect measures:

- No previous college enrollments recorded in the Clearinghouse data, and
- No previous degree awarded in the Clearinghouse’s historical DegreeVerify database.

Given these selection criteria, the sample for this report may include students who had more than 30 Advanced Placement (AP) or International Baccalaureate (IB) credits. It is also possible that a small number of graduate students are included in the study cohort because of inconsistencies in the historical depth of DegreeVerify database records.

Finally, although Clearinghouse data contain some demographic information on students, historical coverage rates for the demographic data elements are uneven. Consequently, results on gender are based partially on imputed values, as described above and slightly over one in six students in the cohort had the race/ethnicity value unknown or missing. No imputation was attempted for missing race/ethnicity data.

### Suggested Citation

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